AMENDMENTS IN THE CLAIMS

What is claimed is:

Claims 1-15. (Canceled)

Claim 16. (Currently Amended) A ~~chemical oxide film removing~~ method of removing [[a]] silicon dioxide ~~film formed on~~ films from a surface of a workpiece ~~in a processing vessel that can be evacuated,~~ having a natural oxide film thereon, said method comprising:

removing the natural oxide film from the surface of the workpiece by a chemical process;

forming a chemical oxide film on the surface as a protective film after removal of the natural oxide film, the chemical oxide film being a [[the]] silicon dioxide film ~~being a chemical oxide film that has been~~ formed by a chemical process using a solution prepared by mixing H_2O_2 and NH_4OH; and, ~~the chemical oxide film having been formed as a protective film after a removal of a natural oxide film previously formed on the workpiece,~~

removing the chemical oxide film from the surface of the workpiece, ~~wherein the chemical oxide film is removed~~ under conditions that:

a mixed gas containing HF gas and NH_3 gas is used;

a processing temperature for achieving etch selectivity for the chemical oxide film to silicon is in the range of 200°C to 400°C;

a processing pressure at which the workpiece is processed is in the range of 26 Pa (0.2 Torr) to 53,200 Pa (400 Torr); and

the flow rate ratio of HF gas to NH_3 gas is in the range of 10 : 1 to 1 : 50.

Claim 17. (Currently Amended) A ~~chemical oxide film removing~~ method of removing [[a]] silicon dioxide ~~film formed on~~ films from a surface of a workpiece ~~in a processing vessel that can be evacuated,~~ having a natural oxide film thereon, said method comprising:

removing the natural oxide film from the surface of the workpiece by a chemical process;

forming a chemical oxide film on the surface as a protective film after removal of the natural oxide film, the chemical oxide film being a [[the]] silicon dioxide film ~~being a chemical oxide film that has been~~ formed by a chemical process using a solution prepared by mixing H_2O_2 and NH_4OH; and, ~~the chemical oxide film having been formed as a protective film after a removal of a natural oxide film previously formed on the workpiece,~~

removing the chemical oxide film from the surface of the workpiece, ~~wherein the chemical oxide film is removed~~ under conditions that:

a mixed gas containing HF gas and NH_3 gas is used;

a processing temperature for achieving etch selectivity for the chemical oxide film to a silicon nitride film is in the range of 200°C to 600°C;

a processing pressure at which the workpiece is processed is not more than 53,200 Pa (400 Torr); and

the flow rate ratio of HF gas to NH_3 gas is in the range of 10 : 1 to 1 : 50.

Claim 18. (Currently Amended) A ~~chemical oxide film removing~~ method of removing [[a]] silicon dioxide ~~film formed on~~ films from a surface of a workpiece ~~in a processing vessel that can be evacuated,~~ having a natural oxide film thereon, said method comprising:

removing the natural oxide film from the surface of the workpiece by a chemical process;

forming a chemical oxide film on the surface as a protective film after removal of the natural oxide film, the chemical oxide film being a [[the]] silicon dioxide film ~~being a chemical oxide film that has been~~ formed by a chemical process using a solution prepared by mixing H_2O_2 and NH_4OH; and, ~~the chemical oxide film having been formed as a protective film after a removal of a natural oxide film previously formed on the workpiece,~~

removing the chemical oxide film from the surface of the workpiece, ~~wherein the chemical oxide film is removed~~ under conditions that:

a mixed gas containing HF gas and NH_3 gas is used;

a processing temperature for achieving etch selectivity for the chemical oxide film to a silicon dioxide film, which has been formed by CVD (Chemical Vapor Deposition), is in the range of 200°C to 400°C;

a processing pressure at which the workpiece is processed is not more than 53,200 Pa (400 Torr); and

the flow rate ratio of HF gas to NH_3 gas is in the range of 10 : 1 to 1 : 50.

Claim 19. (Currently Amended) A ~~chemical oxide film removing~~ method of removing [[a]] silicon dioxide ~~film formed on~~ films from a surface of a workpiece ~~in a processing vessel that can be evacuated,~~ having a natural oxide film thereon, said method comprising:

removing the natural oxide film from the surface of the workpiece by a chemical process;

forming a chemical oxide film on the surface as a protective film after removal of the natural oxide film, the chemical oxide film being a [[the]] silicon dioxide film ~~being a chemical oxide film that has been~~ formed by a chemical process using a solution prepared by mixing H_2O_2 and NH_4OH; ~~and, the chemical oxide film having been formed as a protective film after a removal of a natural oxide film previously formed on the workpiece,~~

removing the chemical oxide film from the surface of the workpiece, ~~wherein the chemical oxide film is removed~~ under conditions that:

a mixed gas containing HF gas and NH_3 gas is used;

a processing temperature for achieving etch selectivity for the chemical oxide film to a thermal oxide film is in the range of 100 °C to 600 °C;

a processing pressure at which the workpiece is processed is not more than 53,200 Pa (400 Torr); and

the flow rate ratio of HF gas to NH_3 gas is in the range of 10 : 1 to 1 : 50.

Claim 20. (New) The method of claim 16, further comprising:

forming a thermal oxide film on the surface after removal of the chemical oxide film, whereby the thermal oxide film is the only film on the surface.

Claim 21. (New) The method of claim 17, further comprising:

forming a thermal oxide film on the surface after removal of the chemical oxide film, whereby the thermal oxide film is the only film on the surface.

Claim 22. (New) The method of claim 18, further comprising:

forming a thermal oxide film on the surface after removal of the chemical oxide film, whereby the thermal oxide film is the only film on the surface.

Claim 23. (New) The method of claim 19, further comprising:

forming a thermal oxide film on the surface after removal of the chemical oxide film, whereby the thermal oxide film is the only film on the surface.